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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,502	10/02/2000	Yoshio Hashibe	HASHIBE ET AL - 1	4484

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EXAMINER	
SERGENT, RABON A	
ART UNIT	PAPER NUMBER
1796	
MAIL DATE	DELIVERY MODE
08/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/677,502	HASHIBE ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2007 and 15 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6 and 8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6 and 8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The physical structure of the fire-protection glass product is unclear in view of the amended language of claim 13. It is not seen that the language is comparable to the language previously set forth within the claim, and it is unclear if the language is somehow requiring the presence of two additional plates. Applicants are required to clarify exactly what structure is encompassed by the claim.

2. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The examiner has not found clear support for the subject matter of the claim. It is unclear exactly what structure is encompassed by the claim or how the claim corresponds to the disclosure of the specification.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 4, 6, and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. (‘704) in view of Hentzelt et al. (‘668) and further in view of Terneu et al. (‘687), Plumat et al. (‘978), Arfsten et al. (‘578), Benson et al. (‘154), and Stephens (‘426).

Friedman et al. disclose the production of fire screening protective glazing laminates, wherein a layer of polymeric material, that corresponds to that of applicants, is sandwiched and adhered between layers of fireproof glass plates. Friedman et al. further disclose that the glass plates may be surface treated with materials that yield heat reflectance. See abstract; column 2, lines 30+; column 4, lines 35-43; and column 6, lines 1-29, especially column 6, line 26.

5. Friedman et al. are silent with respect to the limitations of instant claims 8 and 13 and the surface treatments that may be applied to the glass; however, the use of double glazing, additional glass plating attached through an air layer, and infrared reflecting materials, such as metal doped oxides, were known to be useful for such specific applications as transparent fire-screening panels. This position is supported by the teachings of Hentzelt et al. See abstract; figures 2 and 3; and column 3, lines 5-47, especially lines 38-47, within Hentzelt et al. Figure 2 of Hentzelt et al. is considered to disclose features that correspond to applicants’ claim 13. Furthermore, Terneu et al. also disclose the use of double glazing to enhance insulation characteristics of glass panels. See figures and column 6, line 11. Additionally, Terneu et al., Plumat et al., Arfsten et al., Benson et al., and Stephens serve to reinforce the teaching within

Hentzelt et al. that doped metal oxides were well-known infrared reflecting glazing materials for glass at the time of invention. See abstract within Terneu et al. See column 4, lines 17-40 within Plumat et al. See abstract within Arfsten et al. See column 2, lines 45-60 within Benson et al. See column 3, lines 43-60 within Stephens.

6. Therefore, the position is taken that one of ordinary skill in the art would have been motivated by the teachings of the secondary references, especially the teachings of Hentzelt et al., to modify the fire-screening laminates of the primary reference by employing the claimed doped metal oxides as a heat reflecting surface treatment (glazing), in accordance with the teachings of the primary reference, and by further employing such proven insulation techniques as double glazing and the use of an air barrier, so as to maximize the heat reflectance and fire protection characteristics of the resulting fire-screening glass laminates. The position is ultimately taken that applicants have simply employed well-known materials and techniques in accordance with the teachings of the relied-upon references, so as to arrive at the instant invention.

7. Applicants' response has been fully considered; however, the prior art rejection has been maintained for the following reasons. Applicants have argued that the claims, as amended, exclude the intumescent layer of Hentzelt et al.; however, the examiner disagrees. Despite applicants' argument, it is by no means clear that the language that specifies that the resin layer is bonded or adhered to adjacent ones of the glass plates excludes intermediate layers or materials between the resin layer and glass. The language is interpreted as simply requiring that a sandwich structure exists wherein the specified layers are adhered to form a laminate, and the position is take that such a structure is satisfied by the disclosure of both Friedman et al. and

Hentzelt et al. The argued language sets forth no requirement that the resin layer and glass must be in direct or intimate contact. Furthermore, even if applicants' argument that intumescent materials are excluded was accepted, the position is taken that one seeking to employ a heat ray reflecting film still would have been motivated to utilize the disclosed infrared reflecting materials of Hentzelt et al. in view of the fact that Friedman et al. disclose that heat reflecting surface treatments may be used at column 6, line 26. The examiner finds no merit in applicants' argument that these treatments would not have been considered to include the oxide films of the additionally relied upon prior art, since these oxide films were specifically known as heat reflecting treatments. Lastly, applicants' argument concerning the teaching away of laminating fluorocarbon to glass within Friedman et al. is not understood in view of the aforementioned teachings within Friedman et al. to do exactly this. See column 4, lines 35+ and column 6, lines 1-11.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

/Rabon Sergent/
Primary Examiner, Art Unit 1796

R. Sergent
August 18, 2008